

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1-5. (canceled)

6. (Currently Amended) A process for the preparation of a multi-layer composite slab product, comprising

first and second dense layers of stone material agglomerate and binding agent; and

an expanded material layer in direct contact with the first and second layers and intermediate the first and second layers,

the first and second dense layers being surface layers,
and

the expanded material layer being less dense than each of the first and second dense layers

~~according to claim 1,~~ comprising the following steps:

- distribution of a stone material agglomerate together with a binding agent ~~(3)~~ in a mold or on a molding belt to form a first, lower layer of the product;

- prior to any vibro-compression, positioning on said first layer ~~of~~ at least one pre-cast support ~~(2)~~ made of expanded

agglomerate and a binding agent to form an intermediate layer of the product;

- distribution of a further stone material agglomerate together with a binding agent ~~(3)~~ on said at least one pre-cast layer ~~(2)~~ to form at least a second, upper layer of the product;

- vibro-compression, in a single step, of said stone material agglomerates and binding agents agent ~~(3)~~ and of said at least one pre-cast support ~~(2)~~; and

- hardening of the mixture via thermal reaction;

- ~~surface and perimetral finishing of the mold product,~~
as desired.

7. (canceled)

8. (Currently Amended) A process according to claim 6, wherein said at least one precast support (2) comprises ~~is previously obtained by vibro compression under vacuum from~~ expanded clay granules bound with polyester resin.

9. (canceled)

10. (new) A multi-layer composite slab, comprising:
first and second dense layers of a first material agglomerate and a first binding agent; and

an expanded material layer in compressive direct contact with the first and second layers and intermediate the first and second layers, the second layer being of an expanded material agglomerate and a second binding agent,

the first and second dense layers being surface layers,
and

the expanded material layer being less dense than each of the first and second dense layers.

11. (new) The slab of claim 10, further comprising a perimeter edge surface that exposes each of the first and second dense layers and the expanded material layer.

12. (new) The slab of claim 10, further comprising a perimeter lateral edge surface that completely conceals the expanded material layer.

13. (new) The slab of claim 10, further comprising:
further dense layers of the first material agglomerate
and the first binding agent; and
further expanded material layers,
each of the expanded material layers being in contact
with and intermediate two of the dense layers.

14. (new) The slab of claim 12, further comprising:
further dense layers of the first material agglomerate
and the first binding agent; and
further expanded material layers,
each of the expanded material layers being in contact
with and intermediate two of the dense layers,
the perimeter lateral edge surface of each expanded
material layer being completely concealed by the perimeter
lateral edge surface.

15. (new) The slab of claim 10, wherein,
the first material agglomerate is stone chips,
the first binding agent is polyester resin,
the expanded material agglomerate is expanded clay, and
the second binding agent is polyester resin.

16. (new) The slab of claim 10, wherein,
the first material agglomerate is marble powder chips,
and
the first binding agent is polyester resin.

17. (new) The slab of claim 16, wherein,
the expanded material agglomerate is expanded clay.

18. (new) The slab of claim 17, wherein,
the second binding agent is polyester resin.

19. (new) The slab of claim 10, wherein the specific
weight of the expanded material layer is lower than 1 kg/dm^3 .

20. (new) The slab of claim 10, wherein,
slab has a 1 square meter area and a 3 centimeter
thickness,
each of the first and second surface dense layers are
having a 0.5 thickness,
the expanded material layer has a thickness of 2 cm,
and
the slab has a total weight of 45.7 kg.

21. (new) The slab of claim 19, wherein,
slab has a 1 square meter area and a 3 centimeter
thickness,
each of the first and second surface dense layers are
having a 0.5 thickness,
the expanded material layer has a thickness of 2 cm,
and
the slab has a total weight of 45.7 kg.

22. (new) A method of preparing a multi-layer composite slab product, comprising the steps of:

surrounding a pre-cast support made of an expanded agglomerate and a first binding agent within a mixture of stone agglomerates and second binding agent; and

vibro-compressing, in a single step, the mixture of stone material agglomerates and second binding agent, wherein

a multi-layer composite slab is formed comprising

first and second dense layers of the stone material agglomerates and second binding agent sandwiching the pre-cast support,

the pre-cast support being an expanded material layer in direct contact with the first and second layers and intermediate the first and second layers,

the first and second dense layers being surface layers, and

the expanded material layer being less dense than each of the first and second dense layers.

23. (new) The method of claim 22, wherein the method forms the slab comprising a perimeter edge surface that exposes each of the first and second dense layers and the expanded material layer.

24. (new) The method of claim 23, wherein the method forms the slab comprising a perimeter lateral edge surface that completely conceals the expanded material layer.

25. (new) The method of claim 22, wherein the method forms the slab comprising:

further dense layers of the stone material agglomerate;
and

further expanded material layers,
each of the expanded material layers being in contact with and intermediate two of the dense layers,

the stone material agglomerate is marble chips,
the first and second binding agents are polyester resin, and

the expanded material agglomerate is expanded clay.

26. (new) The method of claim 22, wherein the pre-cast support has a specific weight of lower than 1 kg/dm³.

27. (new) The method of claim 22, wherein the method forms the slab with each of the first and second surface dense layers having a first thickness, and the expanded material layer having a second thickness four times greater than the first thickness.